

Work Order ID 158095

158095

Page 1

Thursday, March 09, 2017 1:59:25 PM

Item ID: D2535

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Spring

Start Date: 3/13/2017 Start Qty: 25.00

Required Date: 3/27/2017 Req'd Qty: 25.00

Reference: SCHEDULED

Cust Item ID:

Customer:

Approvals: Process Plan:

Date: MAR 10 2017 Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2535	Rev A								
100	PURCHASING	0.00							
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: 35646 Possible Supplier: Victoria Spring. 0.070 SS Torsion Spring								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.08							
Packaging	Ensure Material Release Note is attached								
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control	Check dims to dwg								

DAS
13
9-89

50

MAR 30 2017

50x 8017-03-30

DAS
38
9-89

50

MAR 30 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Work Order ID 158095

Thursday, March 09, 2017 1:59:25 PM

158095

Accept

N900040100

Setup Start ***NS1***

Stop ***NS2***

Item ID: D2535

Revision ID:

Item Name: Spring

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Required Date: 3/27/2017 Req'd Qty: 25.00

Reference: SCHEDULED

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

Stop ***NR2***

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

130

130

Packaging

Packaging

Operation
Description

Identify as per dwg & Stock Location: ST008

Memo

Set Up/
Run Hours

0.00

0.04

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
		DAS 6 9-89	50			DAS 41 9-89

MAR 30 2017

140

140

QC

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.42

17/4/3 98

DAS
21
9-89

MAR 31 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Description Work Order Deviation				Disposition				Completed By																	
Root Cause				FAULT CATEGORY																					
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OTHER : _____																									

QA/NCR/NO Rev 1

Picklist Print

Thursday, March 09, 2017 1:59:30 PM

Page 1

Work Order ID: 158095

158095

Parent Item: D2535

D2535

Parent Item Name: Spring

Start Date: 3/13/2017

Required Date: 3/27/2017

Start Qty: 25.00

Required Qty: 25.00

Comments: IPP A99.04.19New Issue (From hand written IPP)DM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2535P		Purchased	No			100	Each	0.0000	1	25			
D2535P									**	50			
Spring													

50x 8017-03-31

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

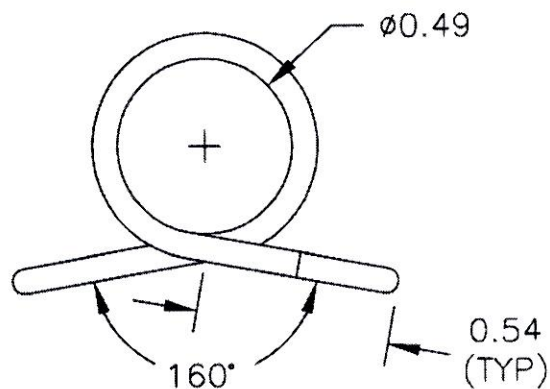
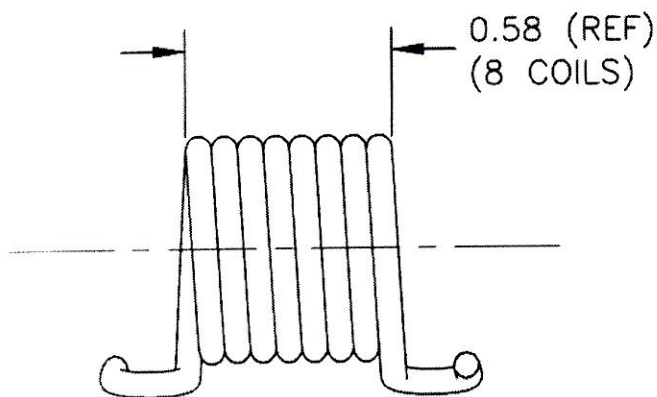
QA Closed: _____ Date: _____

Work Order update only ☐

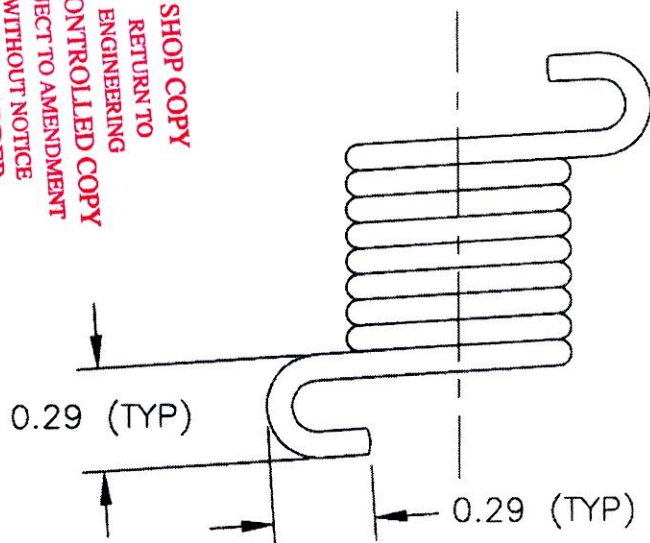
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Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

DART

DESIGN BW	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED RE	APPROVED [Signature]	DRAWING NO. D2535	REV. A SHEET 1 OF 1
DATE 99.04.08	TITLE SPRING SPEC CONTROL		SCALE 2:1
A	99.04.08	NEW ISSUE	

RELEASED
99.05.11 RE

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 158095 MJS
17-03-10

**SPECIFICATION CONTROL DRAWING**

TENSION SPRING WITH 8 COILS (NO GAP BETWEEN COILS)

MATERIAL: AISI STAINLESS STEEL $\phi 0.070$

POSSIBLE SUPPLIERS: VICTORIA SPRINGS, P/N .070SS TENSION SPRING

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO35616**

Purchase Order Date 3/16/2017 10:22:54 AM
PO Print Date 3/16/2017

Page Number 1 of 2

Order From :
VICTORY SPRING LTD.
#2 6104 - 82 AVE.
EDMONTON, AB T6B 0E7
CA

VC-VIC002

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

EMAILED

MAR 16 2017

Contact Name
Vendor Phone 866 230 5312

Ship To Contact
Ship To Phone
Ship Via: FedEx Overnight collect
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	D2535P	Spring DAS 38 9-89	3/30/2017 Yes 3/30/2017		50.00 Each	\$4.74	\$237.00
	AS PER DWG D2535 REV. A B158095						
						Line Total:	\$237.00
3	71401-45	PROCUREMENT QUALITY CLAUSES	3/30/2017 No 3/30/2017		1.00	\$0.00	\$0.00
	Procurement Quality Clauses A005 RIGHT OF ENTRY A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER) A016 PERSONNEL QUALIFICATION A026 CERTIFICATION OF MATERIAL CONFORMANCE A040 NOTIFICATION OF QUALITY ESCAPE A042 DART NOTIFICATION BY SUPPLIER A043 RETENTION OF QUALITY DOCUMENTS						

Note:

3/16/2017



#2, 6104 - 82 Ave
Edmonton, AB T6B 0E7
t + 780 442 4020
e + accounts@victoryspring.ca

PACKING SLIP

Packing Slip: 37418
Date: Mar 28, 2017
Order Ref: PO35616

Sold to:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

Ship to:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7

Shipped By: FedEx Overnight

Shipped Quantity	Backorder Quantity	Unit	Item No.	Description	Price
50		Each	VIC 1533	D2535P Spring - Torsion	4.74
Comment: DAS 38 9-89 SP17-03-30					

MATERIAL CERTIFICATION

REPORT FOR: Dart Aerospace Ltd.	DATE: 3/28/2017
PART/DRAWING #: VIC 1533 / D2535P	PO # PO35616
SPRING DESCRIPTION: Torsion Spring	QUANTITY: 50
MATERIAL GRADE: T302 Stainless Steel Wire Spring ASTM-313-03	
PROPERTIES:	
<u>Chemical</u>	<u>Physical</u>
Carbon: (C) 0.065	Size: 0.072"
Chromium: (Cr) 18.050	
Copper: (Cu) 0.420	Tensile PSI: 268,300 / 275,000
Manganese: (Mn) 1.190	
Molybdenum: (Mo) 0.330	
Nickel: (Ni) 8.020	
Phosphorus: (P) 0.029	Heat # KNAX00924
Silicon: (Si) 0.320	
Sulphur: (S) 0.001	
Mill Source: Gibbs Wire	

Certified by: Jeremy Burrowes - QA

Victory Spring Ltd. certifies this to be a true & accurate copy of the original contained in the company records.

CERTIFICATE OF CONFORMANCE

REPORT FOR : Dart Aerospace Ltd.	DATE: 3/28/2017
PART/DRAWING #: D2535P / VIC 1533	PO # PO35616
DESCR: Torsion Spring	QUANTITY: 50

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	SS302	yes	
Material diameter	0.07	0.072	
Coil I.D.	0.490	.489"	
Coil O.D.		.634"	
Number of Coils	8 ref	7.9	
Overall Length		1.109	
End Type	per dwg	yes	
Helix	RHW	RHW	

COMMENTS

Mill Certificate attached: Yes
Material Heat Number: KNAX00924

Inspected by: *Jeremy Burrows*